



## **PROJECT TITLE: Corporate Human Resource Information System (CHRIS)**

### **IMPACT OF FULL FUNDING OF CAPITAL ASSETS**

Estimated funding requirements for the Corporate Human Resource Information System (CHRIS) project are as follows:

FY98	\$2,010,300
FY99	\$1,221,154
FY00	\$1,196,152
FY01	\$1,169,580
FY02	\$1,150,000
FY03	\$1,150,000
<b>TOTAL:</b>	<b>\$7,897,186</b>

The above estimates include funding for implementation of the PeopleSoft Human Resource Management System (HRMS) modules. It is anticipated that the DOE CHRIS project will be expanded in FY 98 to include PeopleSoft Payroll and Time and Labor modules. Funds to support the purchase and implementation of additional modules will be identified from other DOE funding sources. A long-term funding strategy to support a totally integrated human resources and payroll system will be identified, to include consideration of the DOE Working Capital Fund as a primary option.

### **CAPITAL ASSET PLAN AND JUSTIFICATION**

#### **PART II: JUSTIFICATION AND OTHER INFORMATION**

**DESCRIPTION:** In 1994, the Department of Energy (DOE) conducted an analysis of alternatives to its in-house automated Payroll/Personnel System. This extensive analysis resulted in a decision to eliminate payroll operations in the Department and select another Federal agency to provide these services. The human resources team, working as one of five separate functional teams analyzing technical and functional requirements for cross-servicing, developed business requirements and attended product demonstrations by the potential cross-servicing providers in 1995. Through this extensive study, it was apparent that none of the

external service providers could meet the information management needs of the human resource professionals and program managers.

DOE's human resource community began exploring options that would meet their information needs, and would be compatible with the goal of outsourcing payroll. A Technical Evaluation Team, meeting between December 1995 and March 1996, accomplished the following:

- < Adopted a set of comprehensive functional and technical requirements to be used in a potential procurement action.
- < Conducted a market survey of Human Resource system products currently being modified to handle regulatory and statutory Federal requirements and identified three vendors with possible candidate systems.
- < Recommended a configuration model for the Departmental Human Resource management information system to include estimated acquisition, deployment, implementation and ongoing support costs.

A Strategic Information Management (SIM) planning process, following the framework established by the General Accounting Office (GAO), and published in the GAO document, "Executive Guide - Improving Mission Performance Through Strategic Information Management and Technology" (May 1994), was conducted under the aegis of the Department's Chief Information Officer (CIO). The SIM process conforms to planning requirements of the Information Technology Management Reform Act of 1996, and to the Information Management section of the Department's Strategic Alignment Initiative. The HR SIM identified the information needed to support the human resource business processes, achieve efficiencies in operation, reduce paper work, eliminate redundant information systems, eliminate non-value added work by human resource professionals, and provide the information needed by management to make sound, reasoned human resource decisions.

### **Analysis of Benefits and Costs**

The HR SIM also produced an Analysis of Benefits and Costs comparing the cost of continuing without a corporate Human Resources Management Information System to the cost of acquiring and implementing such a system, over a six year period. The analysis predicted a Return on Investment (Internal Rate of Return) of 52%, or a potential savings of more than \$9 million over a six year life span. It is anticipated that this net savings will be achieved largely through the elimination of redundant systems, including cost avoidance of funding future maintenance and system upgrades and saved personnel time from reduced data entry and maintenance requirements. Additional savings will accrue by avoiding the high cost of modifying many of these systems to accommodate year 2000 dates. The majority of these savings will occur in the outyears as additional functionality is implemented in CHRIS and redundant systems are eliminated.

## **Selection of PeopleSoft**

A workshop to develop software evaluation criteria was held in July 1996. The attendees adopted high-level attributes for software evaluation recommended by the Gartner Group, a firm of highly respected Information Management industry analysts. A formal evaluation process was conducted by a Department-wide evaluation team, resulting in a recommendation to acquire PeopleSoft's Human Resources Management System (HRMS Federal), a commercial off-the-shelf software package. This software was purchased in September 1996.

PeopleSoft's HRMS Federal serves as the foundation of the existing Corporate Human Resource Information System (CHRIS). The likely addition of PeopleSoft Payroll and Time and Labor modules during FY 98 will expand the scope of the CHRIS project, paving the way for an integrated personnel and payroll information system using the same COTS product line. PeopleSoft's solution for the Federal Government addresses the entire federal enterprise with functionality designed specifically to meet Government requirements. PeopleSoft HRMS Federal includes support for the Request for Personnel Action (SF-52) processes, and such benefits programs as the Thrift Savings Plan (TSP), Federal Employees' Group Life Insurance (FEGLI), and Federal Employees' Health Benefits (FEHB). PeopleSoft HRMS, as purchased by the DOE, includes PeopleSoft Human Resources, Benefits Administration and Payroll Interface. Transactions processed through HRMS will be submitted to an integrated payroll solution.

## **Identified Risks**

Several potential risks have been identified which could impact the success of the CHRIS project. These include:

- < the timely selection and execution of an integrated payroll solution;
- < the identification of long-term funding sources to support the existing CHRIS project, and the likely expansion to include Payroll and Time and Labor;
- < the identification and resolution of numerous information technology (IT) issues to prevent future system problems and to begin institutionalization of complex-wide hardware and communication protocols and standards; and
- < the continued commitment of dedicated and part-time resources to the CHRIS matrixed organizational structure.

## **Project Management**

A managerial structure has been established to provide corporate oversight of the implementation process, make decisions concerning how CHRIS will be used throughout the Department, coordinate implementation at all sites, improve business practices to take

maximum advantage of automated capabilities, and track project costs, savings and tasks. The CHRIS structure is as follows:

- <     ***Executive Board***     The current CHRIS management structure envisioned an Executive Board to serve as a senior level advisory body to the project's leadership. While this Board has been chartered and membership named, project management is presently considering the possibility of utilizing an existing Executive Committee for Information Management (ECIM) as the oversight body for the CHRIS project, in lieu of a separate Board.
  
- <     ***Steering Committee***     The Steering Committee serves as the decision-making body for implementation and operation of CHRIS and is comprised of corporate-wide HR and IT representatives. Responsibilities of the Committee include providing both general oversight to the matrixed working teams and serving as a check and balance point for the project's leadership. The CHRIS Project Manager serves as the Committee Chair and is delegated a high level of authority to manage the day-to-day aspects of the project, to include direction to three integrated and matrixed working teams which have been established under the auspices of the Steering Committee. The Contracting Officer's Representative also serves as a member of the CHRIS Steering Committee.
  
- <     ***Matrix Teams***     Working teams have been established to execute the day-to-day taskings which support implementation of the corporate system. The current team structure provides for three major working teams to support initial system implementation, business process re-engineering activities, and planning and coordination type activities. Approximately 40 employees from around the DOE complex are expected to devote 10-25% of their time in support of CHRIS-related activities. The matrix team approach provides for the maximum amount of corporate-wide input into the system implementation, and provides a realistic resource alternative in our downsized environment. The fluid nature of this structure will also allow the project to expand, shrink, or redirect as necessary to support the project's implementation, such as is anticipated with the planned addition of Payroll and Time and Labor modules.

The CHRIS project is being managed and implemented by in-house Federal resources. Minimal use has been made of existing DOE management and operating contractor and support service resources. No external contractors or consulting groups are being utilized in DOE's project implementation.

## **Phased Implementation Strategy**

Implementation of CHRIS will be accomplished in several phases. Future activities will be prioritized based on customer and Departmental needs, readiness for implementation of future modules, and criticality of the systems. Additional considerations include year 2000 compliance and re-engineering priorities. A narrow scope for initial system implementation was defined which included connecting all DOE Servicing Personnel Offices to the corporate system, populating human resource data tables in the new software (to include a massive data clean-up and conversion effort from the existing Departmental system), training an appropriate number of new system users, assuring system security, and ensuring each sites' ability to process personnel actions in the new system.

### **Major Milestones and Accomplishments**

- < established and institutionalized a matrix organizational approach which remains actively involved in the project implementation effort;
- < installed the PeopleSoft HRMS Federal product onto a central server located at the DOE Federal Energy Technology Center in Morgantown, WV (Less than 90 days after product purchase);
- < went "live" with the first DOE site on CHRIS (Less than 120 days after the product's installation);
- < exceeded goals for connecting all DOE Servicing Personnel Offices to the new corporate system (all sites to be connected and operating by December 1, 1997 - 120 days before the established target date); and
- < designed and delivered an in-house end-user training program for system users at a fraction of the cost of vendor-provided training (design completed in less than 60 days - delivered to approximately 100 users in 120 days).

### **FY 98 Plans - Re-engineering Efforts**

HRMS Federal is a fully integrated system which will support some thirty human resource programs and will replace the Department's current Payroll/Personnel and other independently maintained applications. Through the CHRIS implementation, DOE will realign and re-engineer business processes and streamline operations to effect improvement opportunities identified in the HR SIM. With initial CHRIS implementation goals well underway, re-engineering efforts will begin in earnest during FY 98. Priority re-engineering areas for the near term have been identified and include:

- < an extensive analysis of core information needs and requirements for the DOE training community to support adoption of CHRIS as the corporate system of record for **training administration** activities. It is anticipated that this effort

will eventually lead to the elimination of some five major training systems which are currently in use across the DOE complex;

- < an extensive analysis of DOE **position management** needs and practices to take maximum advantage of the way positions and position descriptions are managed in the commercial off-the-shelf software. It is anticipated that this effort will result in fundamental changes to DOE classification practices through usage of generic position descriptions (PD libraries) and changes to PD and position numbering guidelines; and
- < research and development activities to support **web-enabled solutions** for providing DOE managers and employees with access to CHRIS. It is anticipated that this research and the resulting capability will also lay an important foundation for “paperless” processes in the Department and will serve as an important precursor to many other important re-engineering efforts.

These and other re-engineering efforts will be accomplished largely through employee-based/management-championed matrix teams to ensure that corporate needs are identified and met through the process. It is our intent to continue the phased approach to implementing additional system functionality through YR 2003 and continuing over the life of the project.

#### **IMPLEMENTATION SCHEDULE :**

- 12/1/97 - PeopleSoft application operating at all DOE Servicing Personnel Offices, with network connectivity to the corporate data base server. All DOE sites processing personnel actions in CHRIS. Begin integration effort with additional PeopleSoft modules (Payroll/Time and Labor)
- 1/31/98 - Assemble re-engineering teams to support planning and research activities for Phase II implementation
- 3/31/98 - Upgrade to version 7.0 of PeopleSoft completed and appropriate end-user training developed and provided to all system users. Implementation of Benefits Administration module. Begin parallel testing between CHRIS and PAY/PERS (current system of record)
- 6/30/98 - CHRIS becomes the official system of record for personnel transactions

#### **BENEFITS OF CHRIS TO THE ORGANIZATION**

- < Provides direct access to personnel data to DOE managers and employees. Increases ownership of the personnel management process (recruitment, position descriptions, promotions, evaluations, development, status changes, etc.).
- < Maintains human resource data in a centralized location and eliminates redundant data entry efforts, thus increasing reliability and data integrity and providing for better access to personnel data.

- < Enables a corporate approach to re-engineering personnel processes to take maximum advantage of best business practices inherent in the commercial off-the-shelf software. Is a catalyst for changes in business policy and practice as additional system functionality is introduced.
- < Provides decision support capabilities by allowing managers to perform “what if” analyses to determine the impact on budget and mission of proposed changes in staffing levels and organizational structure.
- < Reduces turnaround time in completing personnel transactions, enabling personnel professionals to provide top quality customer service while the Department’s personnel staff continues extensive downsizing.
- < Meets tracking and reporting requirements of the Defense Nuclear Facilities Safety Board (DNFSB), such as the Certification of facility representatives.
- < Complies with the Department’s Information Architecture and with year 2000 date requirements; provides functionality beyond personnel processing, supporting training, accident and Workmen’s Compensation reporting, personal property tracking, etc.
- < Allows for the creation of a data base of potential applicants for DOE positions and for the matching of applicant skills with position requirements. This will assist DOE in meeting workforce diversity and Welfare-to-Work goals.
- < Facilitates a paperless working environment for many of the core HR and administrative systems and processes.

## **BENEFITS OF CHRIS TO MANAGERS AND EMPLOYEES**

Implementation of CHRIS will allow DOE managers and supervisors to:

- < access personnel information on their employees and organizations from their desktop;
- < perform ‘what-if’ analyses to determine impact of proposed personnel changes on budget, organizational structure, etc.;
- < initiate and submit Requests for Personnel Action electronically via a paperless, automated workflow process; and
- < search the data base for skills, education, experience, etc.

Implementation of CHRIS will empower DOE employees by:

- < providing desktop capability to access or change a variety of HR-related personal information from the desktop (i.e., employee express-type functionality); and
- < providing a paperless process for completing certain personnel forms and processes.

**CHRIS SAVES DOLLARS BY:**

- < eliminating support staff costs for redundant automated systems;
- < eliminating redundant data entry into multiple systems;
- < integrating functionality that currently exists in multiple standalone systems;
- < avoiding 'year 2000' transition problems and costs;
- < reducing paperwork by the use of automated workflow capabilities; and
- < eliminating 'non-value-added' work by human resource professionals

**INVESTMENT/SAVINGS/RETURN: (In Millions)**

	<b>FY 1998</b>	<b>FY 1999</b>	<b>FY 2000</b>	<b>FY 2001</b>	<b>FY 2002</b>	<b>Totals</b>
<b>Investment</b>	2	1.2	1.2	1.2	1.2	6.8
<b>Savings</b>	3	4.5	6.2	6.2	6.5	26.4
<b>Return ( by FY)</b>	1	3.3	5.0	5.0	5.3	19.6



## **OMB INVESTMENT CRITERIA**

**Investments in major information systems proposed for funding in the President's budget should:**

### **1. Support core/priority mission functions that need to be performed by the Federal Government;**

It is envisioned that implementation of CHRIS will enable DOE to reduce multiple levels of administrative staffs and provide much needed tools to support already downsized human resources staffs. In addition, CHRIS will provide the flexibility to meet the Department's core and priority mission functions in today's rapidly changing environment by driving decentralized authorities, changed policies, and agency-wide changes to business processes. CHRIS will provide a fully integrated information system rather than just an information processing system.

### **2. Be undertaken by the requesting agency because no alternative private sector or governmental source can efficiently support the function;**

Through the Department's extensive study of personnel services provided by other agencies, the human resource community concluded that none of the available services would meet the needs of the human resource professionals and program managers for an information technology solution. Furthermore, a vanilla implementation strategy of a commercial off-the-shelf product ensures a sound investment in technology for the Department.

### **3. Support work processes that have been simplified or otherwise redesigned to reduce costs, improve effectiveness, and make maximum use of commercial, off-the-shelf technology;**

The Human Resource Strategic Information Management planning process identified opportunities for improving personnel processes, including elimination of work that adds no value to the process. A CHRIS matrix team is analyzing these opportunities to determine how the Department's personnel practices can best be improved and how these improvements can be implemented within DOE using PeopleSoft's HRMS Federal technology. Tasks required to implement system and process changes to support CHRIS will be planned and scheduled as part of the overall implementation schedule.

### **4. Demonstrate a projected return on the investment that is clearly equal to or better than alternative uses of available public resources. Return may include: improved mission performance in accordance with GPRA measures; reduced cost; increased quality, speed or flexibility; and increased customer and employee satisfaction. Return should be adjusted for such risk factors as the project's technical complexity, the agency's management capacity, the likelihood of cost overruns, and the consequences of under-or non-performance;**

The CHRIS Analysis of Benefits and Costs predicted a positive return on investment of 52% over six years. Cost savings will accrue largely through the elimination of redundant systems and duplicated data across the Department. Some 80+ corporate and locally-maintained applications have been inventoried by the CHRIS project. Through a matrix team effort, system owners and users are being interviewed to assess information requirements and to plan for system replacement. Significant return on the capital investment will be realized over the next 2-3 years as these systems are prudently eliminated.

In addition, CHRIS will also allow DOE's human resource professionals to provide improved service to customers in a time of severely reduced resources. Improved turnaround in processing personnel actions and requests for personnel information, improved data accuracy and the flexibility to meet future changes are anticipated with CHRIS implementation. Because CHRIS is based on a market-leading, commercial-off-the-shelf software product, project risk is considered minimal. PeopleSoft's HRMS Federal is based on its private sector version, which has claimed a large share of the human resource software market.

**5. Be consistent with Federal, agency, and bureau information architectures which : integrate agency work processes and information flows with technology to achieve the agency's strategic goals; reflect the agency's technology vision and year 2000 compliance plan; and specify standards that enable information exchange and resource sharing, while retaining flexibility in the choice of suppliers and in the design of local work processes;**

DOE's Information Architecture Team reviewed the CHRIS project and concluded that CHRIS implementation maps closely to seven of the eight architectural principles defined by the Department and is aligned with the published volumes of the Departmental Information Architecture. PeopleSoft's HRMS Federal is compliant with year 2000 date requirements, is certified for operation on several platform configurations and has numerous business partners offering products that operate in conjunction with the application.

**6. Reduce risk by: avoiding or isolating custom-designed components to minimize the potential adverse consequences on the overall project; using fully tested pilots, simulations, or prototype implementation before going to production; establishing clear measures and accountability for project progress; and, securing substantial involvement and buy-in throughout the project from the program officials who will use the system;**

DOE's goal is to implement CHRIS with as little customization as possible. A customization control process has been established to review and make decisions on proposed system changes and to date the product remains 99% "vanilla", with no major customization having been necessary in DOE's implementation. A Project Plan and Master Schedule have been developed to guide the implementation efforts, track tasks by responsible person(s) and by target date, and report project status and progress to the CHRIS Steering Committee and project leadership. A web-based scheduler and reporting tool has been designed which will allow project management to keep a detailed account of all project tasks and milestones and to ensure maximum usage of available matrix resources.

DOE's human resource community has been fully committed to CHRIS since the Human Resource Information System task force and the Human Resource Strategic Information Management (SIM) planning process. In addition, CHRIS has been endorsed by DOE HR Directors as their number one priority for the last two fiscal years..

**7. Be implemented in phased, successive chunks as narrow in scope and brief in duration as practicable, each of which solves a specific part of an overall mission problem and delivers a measurable net benefit independent of future chunks;**

Implementation of CHRIS has been accomplished following a phased strategy during CY 1997. A Phase I goal of connecting all sites to the CHRIS central server and ensuring each site's ability to process personnel actions in the new system was established. Within that phased goal, more specific phased goals were established such as the use of six initial prototype sites for site conversion. Lessons learned feedback was both documented and shared across the complex. Phase II priorities have been identified as training, position management, and web-enabled technologies. Within Phase II, independent net benefits will be realized through re-engineering and implementation of each of the major priority areas.

**8. Employ an acquisition strategy that appropriately allocates risk between Government and contractor, effectively uses competition, ties contract payments to accomplishments, and takes maximum advantage of commercial technology.**

CHRIS implementation is being undertaken primarily by the Department's human resource and information management communities, with minimal assistance from support services contractors. The evaluation and selection of a vendor for CHRIS involved in-depth analyses of the Department's needs, product demonstrations, interviews with customers of three top vendor candidates, review of responses to a Departmental questionnaire, further discussions with the three potential vendors, and a formal rating and ranking of vendors by the CHRIS evaluation team. The selected product, PeopleSoft's HRMS Federal, is a commercial-off-the-shelf software application used extensively in the private sector that has been modified by PeopleSoft to meet requirements of the Federal Government.

### **PART III. COST, SCHEDULE, AND PERFORMANCE GOALS**

**A. Description of performance-based system:**

This project utilizes the standard earned value system. The reporting threshold for cost and schedule variances will be 15% for this project.

**B. Previous baseline goals:**

There are no previous baseline goals.

### C. Baseline Goals:

#### 1. Cost and schedule goals (in millions).

FY98	FY99	FY00	FY01	FY02	FY03	TOTAL
2.0	1.2	1.2	1.2	1.2	1.2	7.9

The life cycle costs submitted for the CHRIS project are \$8 million. This includes the initial acquisition of the PeopleSoft product, which was completed in September, 1996. Milestones for FY 98 include the processing of all personnel actions in both CHRIS and the existing PAY/PERS system Department-wide. The goal is for all DOE sites to be processing actions in version 7.0 PeopleSoft by March of 1998. Other milestones for FY98 are the identification of an integrated payroll solution and the establishment of CHRIS as the official system of record for personnel transactions by July 1998. Re-engineering efforts to support Phase II implementation of the project will also be a priority for FY 98. FY 99 milestones include phasing out old PAY/PERS functions which are being replaced by CHRIS, the implementation of the payroll and time and labor modules of the PeopleSoft product, and the upgrade to PeopleSoft version 7.5. In FYs 00/01, the project will continue the phased implementation of product functionality, as well as keep current with future product releases, including enhanced Federal functionality and improved technologies.

#### 2. Performance goals.

CHRIS will replace the existing PAY/PERS system, which is nearing the end of its life cycle, as well as the more than 80 redundant or outdated HR information systems which have been identified throughout DOE, thus beginning to realize our 52% ROI. CHRIS will also provide a standardized platform with instant access to HR data through the use of web-based technologies, enabling the HR community to respond much more effectively and efficiently to the needs of DOE managers and employees and, in addition, will provide more timely and accurate personnel information for decision-making purposes. Finally, conversion to the CHRIS system will resolve any Year 2000 problems that currently exist with PAY/PERS and other independently-maintained applications.

### D. Current estimate:

1. Cost and schedule goals. The current estimate for this project is the baseline identified in C.1.
2. Performance goals. Current estimates of the performance goals of this project are the same as those identified in C.2.

**E. Variance from baseline goals:**

As this is the initial report on this project, this item is not applicable.

**F. Corrective actions:**

As this is the initial report on this project, this item is not applicable.

**G. Proposed revisions to baseline goals:**

As this is the initial report on this project, this item is not applicable.

OMB300A.WPD